



V-Soft Consulting Group, Inc.

Developing Business Process and Integration Solutions in BizTalk Server 2006

Goals:

- Describe the message processing architecture and the development environment provided by BizTalk Server 2006.
- Create XML and flat-file schemas.
- Create a BizTalk map and use functoids to manipulate data in a map.
- Deploy a BizTalk project and view deployed assemblies.
- Route messages based on the contents of a received message.
- Configure common adapters to enable BizTalk integration.
- Create an orchestration to represent a business process.
- Use orchestration shapes to define a detailed business process.
- Configure an orchestration for transactional business processing.
- Create, deploy, and manage a BizTalk application.
- Configure BizTalk to consume and publish Web services.
- Configure business rules and call a business rule from within an orchestration.

Module 1: Introduction to BizTalk Server 2006

This module describes the BizTalk message processing architecture and identifies the new features and toolsets provided in BizTalk Server 2006.

Lessons:

1. What Is BizTalk Server 2006?
2. What's New in BizTalk Server 2006?
3. The BizTalk Server Development Environment
4. Lab: Examining a BizTalk Application
5. Test a BizTalk Server Application

After completing this module, students will be able to:

- Describe common BizTalk Server 2006 scenarios and how BizTalk Server 2006 works to process messages.
- Describe improvements and new features in BizTalk Server 2006.
- Identify the tools provided in the BizTalk Server 2006 development environment.

Module 2: Creating Schemas

This module explains how to use BizTalk development Lessons:

1. Introduction to BizTalk Schemas
2. Creating XML and Flat-File Schemas
3. Lab: Creating BizTalk Schemas
4. Creating a New BizTalk Project
5. Creating an XML Schema Using BizTalk Editor
6. Creating a Flat-File Schema Using the Flat File Schema Wizard
7. Creating a Schema from a Sample XML Message Instance

After completing this module, students will be able to:

- Describe how BizTalk uses XML and identify the types of XML message types supported by BizTalk.
- Create an XML schema by using the BizTalk Editor and create a flat-file schema by using the Flat-File Schema Wizard.

Module 3: Creating Maps

This module explains how to use BizTalk Mapper to create and work with BizTalk maps. Students will learn how to add functoids to a map and how to compile and test a map.

Lessons

1. Creating a BizTalk Map
2. Configuring Basic Functoids
3. Configuring Advanced Functoids
4. Lab: Creating a BizTalk Map
5. Creating a Basic Map
6. Adding Functoids to a Map
7. Configuring Advanced Functoids

After completing this module, students will be able to:

- Describe how maps are used by BizTalk and how to use the BizTalk Mapper to create a map.
- Manipulate data by using functoids and add functoids to a map.
- Perform advanced mapping operations by using advanced functoids.

Module 4: Deploying a BizTalk Project

This module explains how to deploy a BizTalk project and how to view deployed assemblies.

Lessons

- Introduction to Deployment
- Deploying an Assembly
- Lab: Deploying an Assembly
- Assigning a BizTalk Project to an Application
- Building and Deploying a BizTalk Application
- Creating Receive Ports and Locations
- Creating Send Ports
- Testing a BizTalk Assembly

After completing this module, students will be able to:

- Explain how BizTalk deployment works and describe the steps required to deploy a BizTalk assembly.
- Deploy an assembly by using Visual Studio and view deployed assemblies by using the Assembly viewer.

Module 5: Routing BizTalk Messages

This module explains how to enable message routing and how to use BizTalk tools to monitor live and archived message activity.

Lessons:

1. Introduction to Message Routing
2. Configuring Message Routing
3. Tracking Message Activity
4. Lab: Enabling Message Routing

5. Promoting Message Properties
6. Configuring a Filter Expression
7. Testing Message Routing

After completing this module, students will be able to:

Describe how BizTalk messages are routed by various BizTalk components. Configure BizTalk message routing.

Module 6: Creating Pipelines

This module explains how to create and configure receive and send pipelines for processing messages.

Lessons

1. Introduction to Pipelines
2. Building a Pipeline
3. Lab: Creating Pipelines
4. Create a New Receive Pipeline Used to Split Bulk Messages
5. Test the Receive Pipeline

After completing this module, students will be able to:

- Explain how pipelines process messages.
- Use the Pipeline Designer to create a pipeline.

Module 7: Integrating with Adapters

This module explains how to configure common adapters to enable BizTalk integration.

Lessons

- Introduction to BizTalk Adapters
- Configuring a BizTalk Adapter
- Lab: Integrating with Adapters
- Configuring the POP3 Adapter
- Configuring the SMTP Adapter
- Configuring the File Adapter

After completing this module, students will be able to:

- Describe how adapters are used to connect BizTalk Server to external systems.
- Configure a protocol, data, and application adapter.

Module 8: Creating a BizTalk Orchestration

This module explains how BizTalk orchestration services work and shows how to create a BizTalk orchestration. Students will also learn how to use debugging tools to monitor a running orchestration.

Lessons:

- Introduction to BizTalk Orchestration
- Building an Orchestration
- Monitoring Orchestrations
- Lab: Creating a BizTalk Orchestration
- Creating a New BizTalk Orchestration
- Creating BizTalk Orchestration Ports
- Creating BizTalk Orchestration Messages

After completing this module, students will be able to:

- Explain how BizTalk orchestrations are used to represent a business process.
- Use the BizTalk Orchestration Designer to define a business process.

Module 9: Automating Business Processes

This module explains how to use orchestration shapes to represent the logical flow of an orchestration. Students will also learn how to manipulate data and manage exceptions within an orchestration.

Lessons:

1. Controlling the Flow of an Orchestration
2. Configuring Orchestration
3. Lab: Automating a Business Process
4. Configuring Orchestration Expressions
5. Configuring Message Correlation
6. Configuring Exception Handling

After completing this module, students will be able to:

- Use orchestration flow control shapes and create modular orchestrations.
- Configure orchestration expressions, message correlation, and exception handling.

Module 10: Deploying and Managing BizTalk Applications

This module explains how to create and deploy BizTalk applications in a production environment. Students will also learn how to manage running applications.

Lessons:

1. Introduction to BizTalk Applications
2. Deploying an Application
3. Lab: Deploying a BizTalk Application
4. Creating a BizTalk Application MSI Package
5. Installing from a BizTalk Application MSI Package
6. Using Binding Files

After completing this module, students will be able to:

- Explain how BizTalk artifacts can be grouped as applications to simplify deployment and management tasks.
- Deploy an application as a Microsoft Installer (MSI) package and create and import binding files.

Module 11: Integrating with Web Services

This module explains how to consume a Web service from an orchestration and how to publish an orchestration as a Web service.

Lessons:

1. Introduction to Web Services Integration
2. Consuming a Web Service
3. Publishing an Orchestration As a Web Service
4. Lab: Consuming and Publishing Web Services with BizTalk
5. Publishing a BizTalk Orchestration as a Web Service

After completing this module, students will be able to:

- Explain how Web service integration works in BizTalk.
- Configure an orchestration to consume a Web service.
- Publish an orchestration as a Web service.

Module 12: Integrating Business Rules

This module explains how to configure business rules and how to call a business rule from within an orchestration.

Lessons:

1. Introduction to Business Rules
2. Integrating Business Rules
3. Lab: Integrating Business Rules
4. Creating a Business Rule Policy
5. Configuring an Orchestration to Call the Business Rules Engine
6. Testing the BizTalk Application

After completing this module, students will be able to:

- Explain how business rule integration works in BizTalk.
- Compose, publish, and deploy business rules.

Module13: Testing BizTalk Applications Using BizUnit

This module explains how to test BizTalk Applications using BizUnit and NUnit.

Lessons:

1. Create a BizTalk Project.
2. Write TestCases using BizUnit.
3. Test the BizTalk Project by executing the BizUnit TestCases using NUnit.